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CONTENTS

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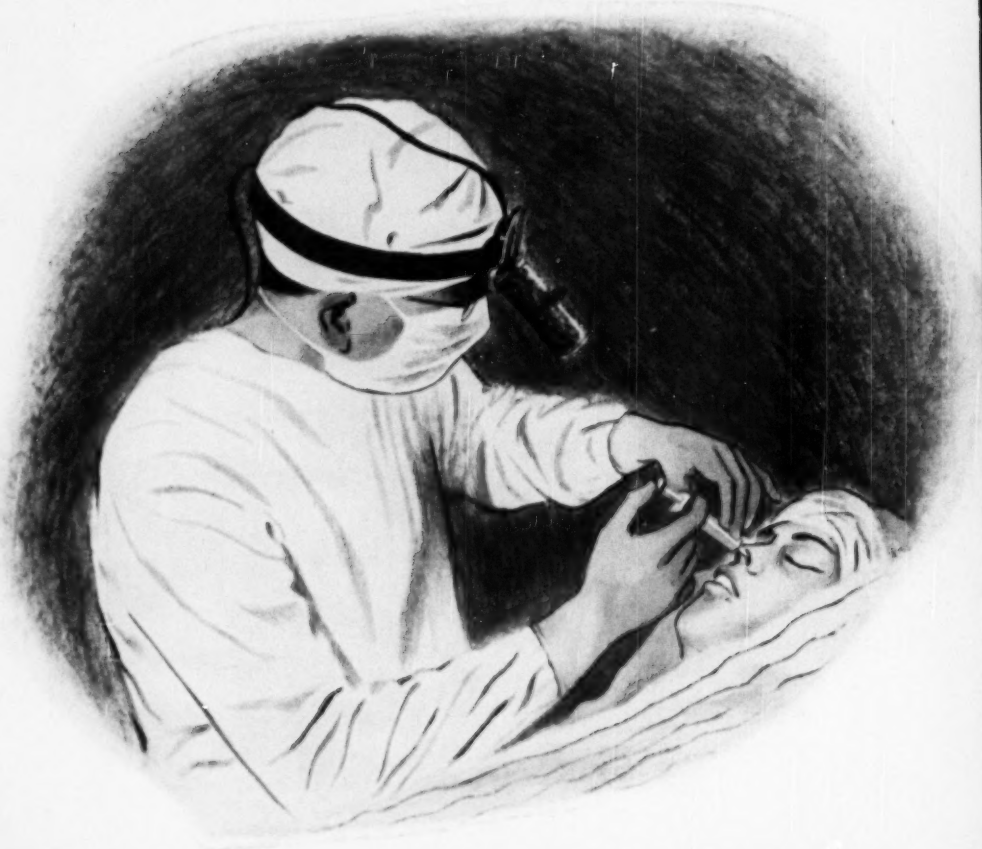

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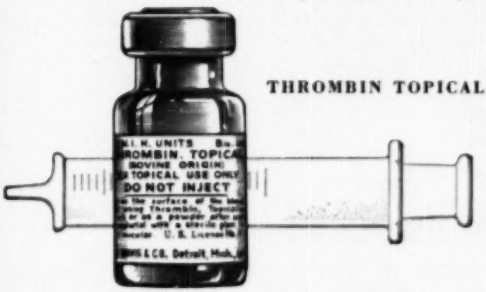

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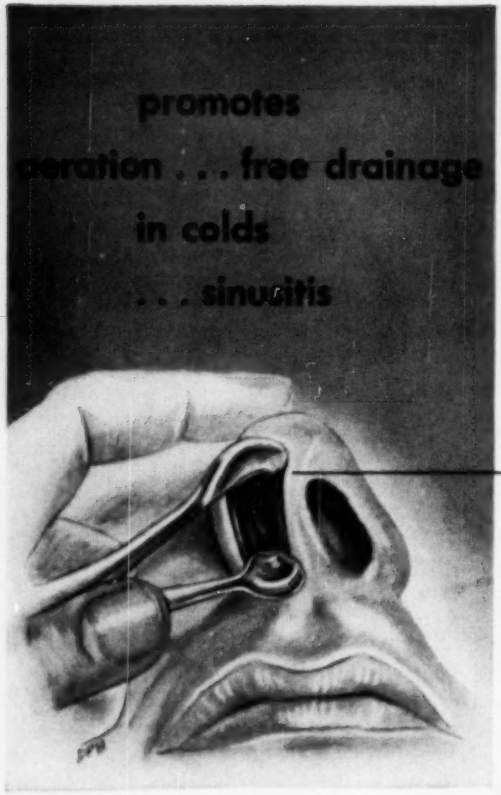
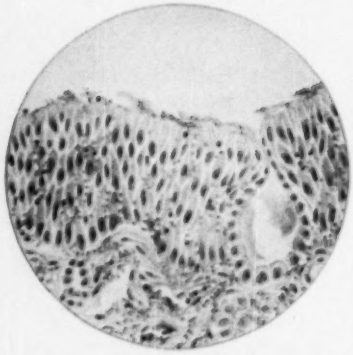
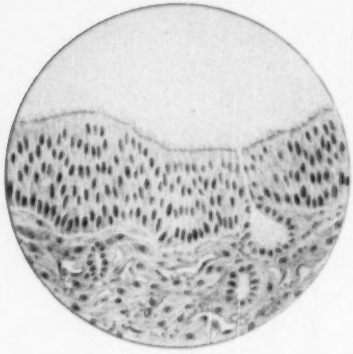




Nasal membrane showing increased leukocytes with denudation of cilia.

Normal appearing nasal epithelium.



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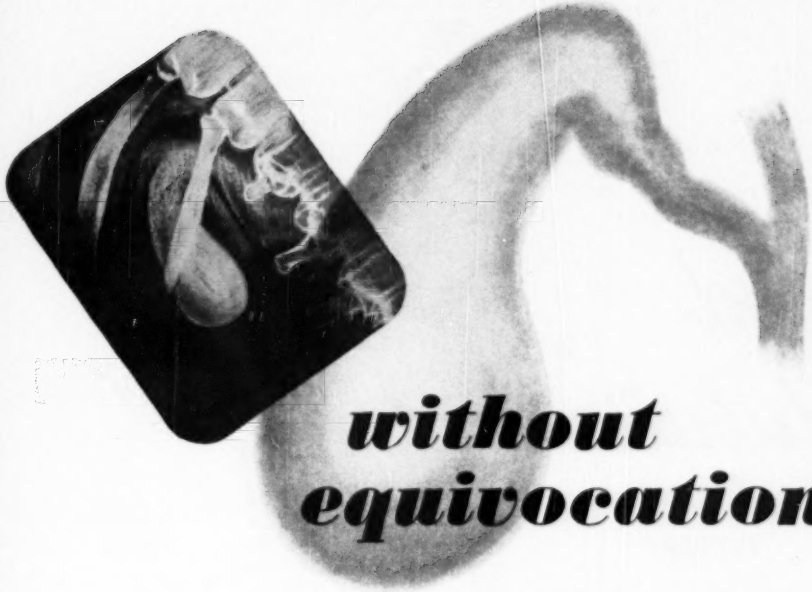

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1. Brewer, A. A.: Radiology 48:269, 1947.

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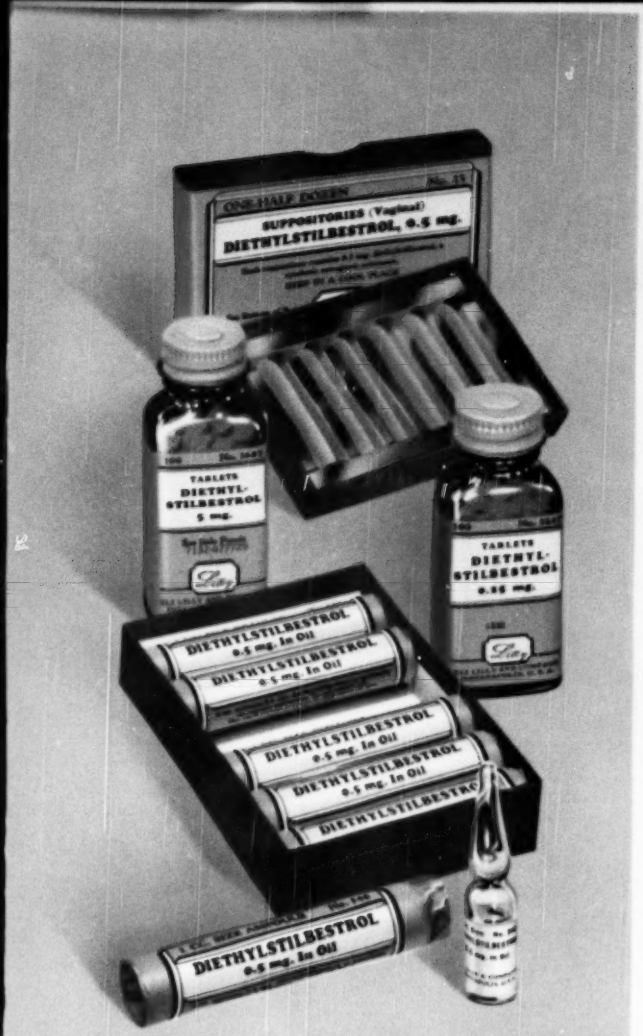

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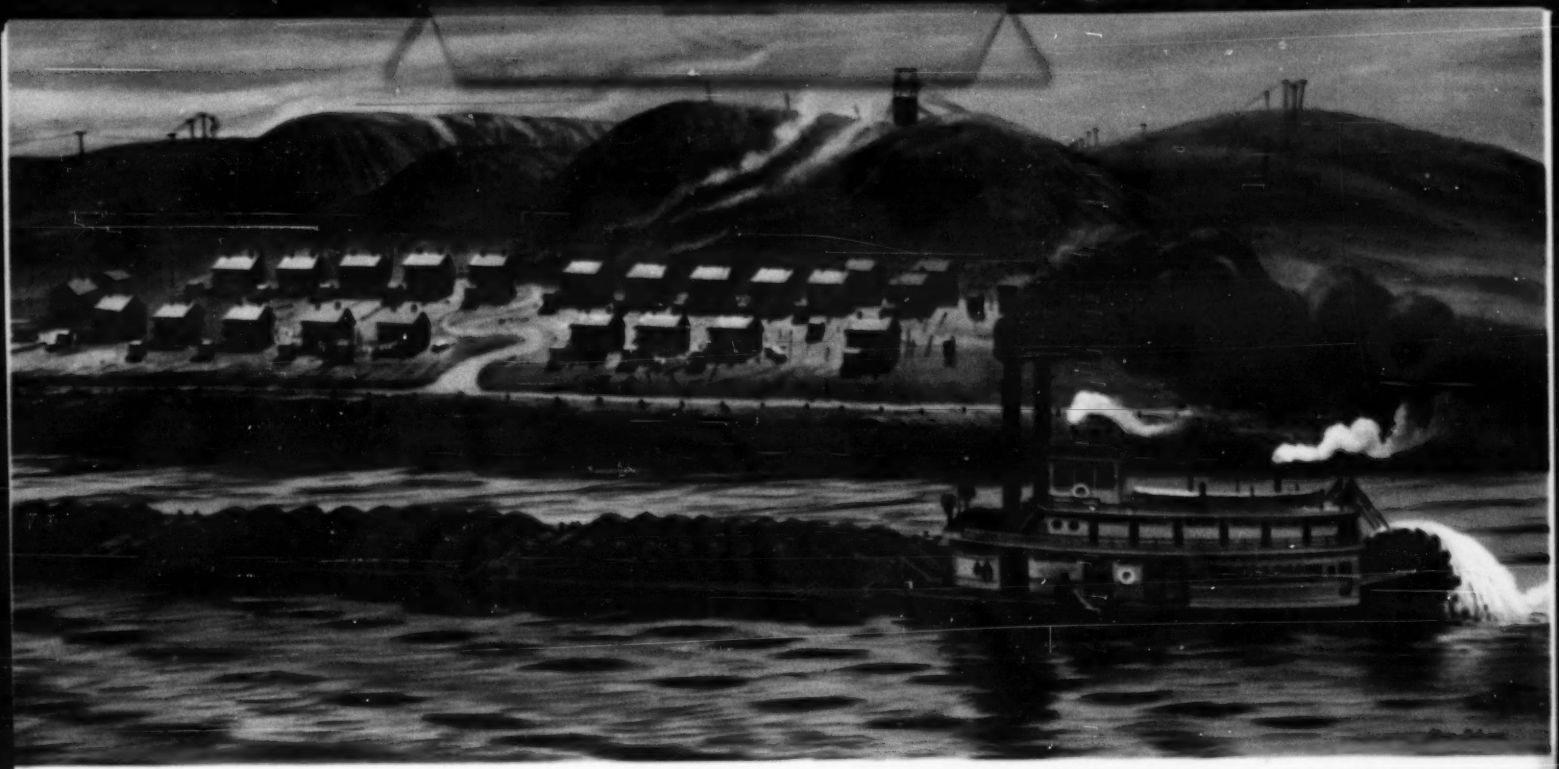

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A SEGMENT OF THE PROBLEM OF ABNORMAL DRINKING

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Delaware City, Del.

In response to increased tension and anxiety, agitation, retardation, and excitement are common daily reactions occurring in "normal" individuals who never become overtly ill as well as in those who do. Humans from time to time develop a spiral reaction in which worry begets worry, and the resulting increase in tension and anxiety revives doubts or conflicts over personal adequacy and integrity. The new anxieties thus stimulated and the new doubts thus raised add to the worried person's insecurity and further elevate the intrapsychic pressure. There are various modes of intra- and extra-personal dealing with this augmented tension and anxiety. This brief resume deals with the methods used by so-called normals and the "abnormal" who, in our culture, by means of convivial company or in solitary state, create or find a stimulating, exciting, or/ and permissive environment in the release afforded by alcoholic imbibition, with its subsequent depression or cortical function. The use of alcohol, as with other compensatory techniques, usually personally unwise or socially undesirable, must and can be understood only as the resultant, compulsively repetitive of an earlier phase of unresolved conflict and intolerable strain, reactivated in the present.

These mechanisms can be seen reproduced in the laboratory animal, using the method of Masserman.[1] Interest was aroused in the adventitious unplanned "experiments of daily life" as they were processed through the available facilities in Illinois during the period the writer was employed by the Department of Public Welfare in Illinois. The procedure of study attempted was to try to apply the Bowman-Jellinek Classification schedule[2] to an unselected group of chronic alcoholics. After more than two years of attempting to use this frame of reference in a general sort of way, it was realized that a more intensive type of study would have to be initiated. An Alcoholic Diagnostic Clinic was set up; the time encompassed was from March, 1948, through December, 1948. Cases were unselected, as they came before the staff for classification at the Kankakee State Hospital. The criterion utilized was that the subjects had been sent classified as chronic alcoholics to Psychopathic Hospital from one of the various jails in and about the metropolitan area of Chicago. Others in this group had been taken to Psychopathic Hospital on the recommendation of one of the legal authorities in Chicago or Cook County, or had been sent by one of the physicians in the Chicago metropolitan area. These individuals comprised 97% of the total group of chronic alcoholics received at the Kankakee State Hospital; (the other 3% had been received directly at Kankakee State Hospital). All were abnormal drinkers, and comprised a total of 119 females and 504 males; there were of course repeaters, but these were culled out and counted only once. Information was obtained from the patients, their relatives, the police, and the social service agencies involved; neuropsychiatric and psychologic data were obtained by hospital personnel. The diagnostic staff was briefed on the Bowman-Jellinek Scale and any tentative diagnosis was a consensus.

From the onset much difficulty was experienced in attempting to arrive at a satisfactory classificatory evaluation for the following reasons: (1) inadequate information, and because of this some cases had to be discarded; (2) disparity in the opinions of the members of the staff—this was unavoidable; (3) the fact that the substrate for the Bowman-Jellinek Scale was composed of a

*Assistant Superintendent, Governor Bacon Health Center.

precipitate of recent philosophical imbrications on the medieval evaluation of man, and not from facts observed and tested. To avoid further such difficulty, each patient was evaluated individually, independently of any preconceived schedule, taking into account the various observable facets of his existence. The material thus derived was checked in part against the data available in the U. S. Census Bureau Reports for the year of 1947[3], or when that was not available, for 1940[4]. Other sources were used as were found fitting.

To relieve the busy practitioner of the burden of reading dry and dull statistics, liberty will be taken in presenting only the digest of information derived therefrom.

There was noted a preponderance of incidence of alcoholics for the age groups from 35 to 54 years; this skewing in the direction of the median age might be considered as a reflection of the pressures of living concomitant with increase in years in our present day culture. The factor of reduction in tissue tolerance with advance in years must be considered.

In comparison with their incidence in census population in the Chicago metropolitan area (U. S. Census report for 1947), there was noted a marked preponderance of the negro alcoholics who were sent to Kankakee State Hospital. There was sufficient disparity to point up the possible significant trends, seen elsewhere, of the demoralizing effect of urban existence on some components of our population. An inferior social status, a feeling of being underprivileged, insecurity, dissatisfaction, frustration and denigration, may cause more overt personality disturbance than would be demonstrated in a simpler rural environment.

The foreign-born white alcoholic was slightly less a problem proportionately, than was the native born alcoholic living in the Chicago metropolitan district. However, it was noted, that the alcoholic offspring of foreign-born white parentage were extremely disproportionate in relation to their expected ratio referent to a comparable census figure. Adjustment is not only a biologic concept, it is also a type of relationship between the individual and his society; there is a cultural lag or distortion inherent in belonging to a minority group. A well-adjusted person is a person who is well-adjusted to a given society or subculture. When a person or a family enters another cultural group, either partially or completely, the question arises as to how well he or they become acculturated, since each society has created its own definite local cultural standards, and these decide whether a given behaviorial pattern is to be recognized as normal or abnormal. The cultural standards may be a factor in the etiology of abnormal drinking.

The patients received at the Kankakee State Hospital were increased out of proportion to their relation to the census incidence for the components of Irish, English, Scotch and French derivation. Little gross reason can be found which would indicate a specific localization factor for abnormal drinking in any citizen group of European stock.

An examination of the figures for educational attainments of the alcoholic group compared to those of the general population would point-up the fact that the nonalcoholic in general attains a higher educational level than the abnormal drinker.

When the economic-industrial characteristics of the alcoholic patients sent to Kankakee were examined the patients were found to be preponderantly unskilled and unemployed. This must be borne in mind when the question of therapy arises and a plan for extramural existence is considered. Were those people unskilled and unemployed because they are abnormal drinkers; or, are they abnormal drinkers because they are unskilled and unemployed?

The reproductive level of the male and female alcoholics hospitalized at the State Hospital was such as to throw a serious doubt on the claims for a genetic etiology of alcoholism.

Statistics referent to position in the sibling relationship and the significance of the total number of children in the family did not reveal any valid data from which conclusions could be drawn. This is a nuclear problem still referent to the interpersonal factors alive in each family constellation.

The figures for duration of the alcoholic state indicated that the largest cluster was found for the period of the 15-24 year group.

This is of little isolated significance, except that it fits well into the histories of long, protracted episodes of bio-social disturbance, and perhaps improper and inadequate handling of the alcoholic by the medical profession.

Examination of the records in regard to institutionalization and incarceration in durance vile indicates that arrest and subsequent treatment, as if the alcoholics were criminals, does little to assist in treatment. Little data could be extracted which would qualify and justify a strictly custodial "dry" period as being of any real value to either the patient or the society which treats him so harshly. Hidden in a mass of statistical data are found the wanderings from one state to another; one jail to another, and one state hospital or other eleemosynary institution after another. A very small number—less than 5%, had spent any time in a private facility; the state hospitals in Illinois which have borne the brunt of the treatment offered were never designed for the care of such people, but were, in the absence of any other more adequate facility, the best available. This must indicate a gross fumbling around in our treatment and handling of the "abnormal drinkers."

Voluntary admissions to the available facilities were 27% male and 14% female; (Kankakee M:1.6% and F:3.2%; Psychopathic Hospital M:25.4%; F:10.8%). 21.7% of the males and 36.7% of the female alcoholics were arrested by the police for being drunk and disorderly in public; 20.4% of the males and 17.5% of the females were found by the police in a psychotic state (D.T.'s, A.A.H., etc.). 18% of the males were arrested by the police on complaint of the parents, siblings or spouse; 19.2% of the females were arrested by the police on the complaint of parents, siblings, or spouse. 4.4% of the male and 4.2% of the female patients had been picked up by the police after they had threatened or attempted a suicidal assault. Significantly enough, only 1.2% of the males and 0.8% of the females had been picked up for assaulting or otherwise molesting children. Only 1% of the male and 0% female had attempted homicide. These facts should indicate that the alcoholics (at least the ones received at Kankakee) did not constitute any major threat to society, but were in the nature rather of public nuisances. As such, they should not be treated as criminals.

The marital status of the alcoholics admitted to Kankakee, when checked against the current population report of the Chicago metropolitan district, for April 1947, indicated that abnormal drinkers tend to marry less, and to separate and to divorce[5] oftener than the non-alcoholic. There is also evidence to the effect that the so-called single alcoholic female, and to a lesser extent the male, tend to unite in a common-law arrangement. As a group, the abnormal drinkers do not achieve a proper marital status, nor do they maintain adequately the marital state. It has been found in Cook County, (the largest part of the Chicago metropolitan district) for the period of September 1945 to April 1947, there were 398 divorces (5%) of a total of 8,000 in which the chief complaint was drunkenness. This seems a small percentage; however, when the other factors of desertion (57%) and cruelty (34%) were fragmented, inebriety made a heavy contribution to the whole.

Death of a parent, one or both; divorce or separation; conflict between parents initiated by alcoholism and brutality of the father; excessive strictness on the part of the father, were reported as most significant in causation of their own inebriety, by the alcoholics questioned. However, these made up so small a group, compared with those alcoholics reporting nothing significant, as best as they could recall, that care must be taken in attempting to point up any one factor or group of causes as being of specific importance in the etiology of abnormal drinking.

The factor of religion,[6] as exemplified in reduced church attendance and affiliation, was interesting in that the religious aspect of the problem drinker's life did not seem to be strongly entrenched, and may have constituted a probable source of weakness. This feature is acknowledged by A. A. in their group form of therapy. The lack of religion, so-called, may represent one more facet in the isolation characteristic of the abnormal drinker.

Complete physical examination of the entire group studied, indicated that there were no special predilections or predispositions to

somatic disorders for alcoholics who were admitted to the State Hospital.

Psychologic Work-up (completed on 90% of the patients) a. Psychometric tests were based on the Wechsler Bellevue[7] or the Illinois Initial Tests.[8] In the group of I.Q. 79 or less, the "norm" group equalled 8.9%; the alcoholic males 6.8% and females 14.1%. In the 80-90 I.Q. group, the norm was 16%, while the alcoholic males equalled 9.8%; female alcoholics 22.4%. In the 91-110 I. Q. group, the norm was 50%; alcoholic males 43.4%, alcoholic females 42.2%. In the group I.Q. 111-119 the norm was 16.0%; the alcoholic males 13.4% and alcoholic females 12.1%. This does not indicate any special grouping of the alcoholics in a definite intellectual level much disparate from that of the so-called "norm" (at least the percentage difference was not too significant). The I.Q. cannot be used as a criterion for diagnosis or evaluation of the alcoholically deviated individual.

b. *Special Psychologic Tests.* The Rorschach was used in 18% of the total male group and 30% of the total female group in those alcoholic patients concerning whom the classification staff considered a more intensive psychologic work-up was necessary. Of these, 24.5% of the males and 8.4% of the female alcoholics presented findings significant of a severe neurotic tendency. In 33% of the male and 33.3% of the female alcoholics, there were findings indicative of a severe undifferentiated intra-personal disorganization not otherwise classifiable. In 0.5% male and 13.9% of the female there was noted evidence of organic deterioration.

The Bender-Gestalt, Goldstein-Scheerer Cube, and the Babcock Deterioration tests were used in the study of 18% of the total alcoholic males and 20% of the total alcoholic females concerning whom more data was desired for elucidation of their problems and potentialities. The results indicated that in this group, 14% of the male and 16.7% of the females demonstrated marked schizophrenic trends. In 14.% of the males and 8.3% of the females definite neurotic trends were noted. In 40% of the male and 54.2% of the female alcoholics there were noted findings significant of a severe undifferentiated intra-personal disorganization. In 35% of the male and 20.8% of the female patients definite evidence of pathologic organic deterioration was noted.

The above findings—admittedly in a selected group—indicate that the term *chronic alcoholic* may cover a multitude of personality disorders and deviations. This label is not specifically given, nor authorized in the approved A.P.A. nomenclature; but is in general use most elsewhere save for a few oases of enlightenment!

Classification. A simple classification schema, evolved de proprio motu, derived in part from the Bowman-Jellinek Schedule, from the accepted A.P.A. groupings, and from the material available from the various offshoots of the so-called "dynamic" schools of psychiatry, is followed. The resultant is a pragmatic frame of reference which is not to be taken too seriously and refers only to the patient group surveyed at Kankakee State Hospital.

CLASSIFICATION SCHEMA

	M%	F%
a. Psychopathic Personality	2.6	3.5
b. Stupid (mental defective)	3.2	8.4
c. Symptomatic:		
1. Functional		
(a) Psychotic		
(1) Schizoid	14.4	15.8
(2) Cycloid (M & D)	0.6	2.5
(3) Paranoid	5.6	10.0
(b) Neurotic		
(1) Primary: referable to conditional childhood personality disorders	15.0	28.3
(2) Reactive or Secondary: (socially conditional, "stammtisch")	44.0	25.7
2. Organic:		
(a) Epileptic	4.4	2.5
(b) Structural Change		
(1) Undifferentiated	1.6	2.5
(2) Lues (CNS)	1.6	0.8
(3) Cerebral Arteriosclerosis	5.4	0.
(4) Senile	1.6	0.

It is to be re-emphasized that these figures were derived from human beings previously classified innumerable times by the epithet chronic alcoholic. While the preceding is only another species of name-calling, yet it does indicate that each alcoholic patient must be carefully diagnosed and evaluated on his or her individual merits. If this is not done we can be accused of closing our eyes to the painfully obvious, and of neglecting our duty as medical men. It has been stated by

Haggard and Jellinek[9] that 30% of inebriates were found with no personality abnormality, 50% of the alcoholics presented signs and symptoms of major neuropsychiatric disorders, and that 20% presented signs and symptoms of minor neuropsychiatric deviations including the neuroses. This writer has never found a well-balanced or adequately integrated "abnormal drinker;" there is in the least disturbed of these individuals a dysphoria of variable degree and duration.

Discussion. Rejecting pseudo-philosophical cogitations and merycolic derivations of man, data accumulates pointing up the idea that a pragmatic evaluation on an objective factual basis utilizing all approaches and means of extracting information from every source relevant to the individual chronic alcoholic or abnormal drinker seems to be the only method whereby such a person can be helped. The choice lies between the authoritarian versus the laissez-faire versus the biosocial-developmental points of view.

In the evaluation of the so-called stupid drinker, must be carefully acknowledged the fact that unless the concept of a reversible deterioration is kept in mind, and retesting procedures utilized, the initial toxic-encephalopathic state may lead inexperienced workers to assume that a greater or lesser degree of mental deficiency exists when in reality such is not the case. Too, in cases of functional mental deficiency, diagnoses may be inaccurate unless the concept of such a pseudo-oligophrenic condition is kept in mind. Treatment and disposition are, in our present state of neurolinguistics, dependent on diagnosis.

The psychotic individual classified in the Schizoid group may have masqueraded as an alcoholic habituant for years before his capacity for integration becomes irrevocably dissolved by alcohol. The number is large, and this has been corroborated by the work of Ellerman.[10] The experienced State Hospital physician sees this transmutation often.

The cycloid psychotic alcoholic may evidence the stigmata of chronic alcoholism when, in reality as the result of being in the throes of an excessive emotional fluctuation, he satisfies a dimly felt need in the dulling of cortical sensibilities by imbibition of alcohol.

The paranoid psychotic whether male or female must be considered as one touched to the basic core of his being by the fancied threat of partial or total loss of the sexual partner—this is either endogenous or possibly exogenous in origin. The alcohol sought as a measure of relief merely touches off an explosive retaliatory reaction which may not be alleviated by any means, not even sobriety! Such dangerous individuals must be carefully assayed before they are considered for return to the home where they came. There may be, too, in some an organic component in the form of a diffuse hyperplastic sclerosis of the cortical vessels. This was seen in microscopic examination of the brains of two patients (aet. 36, 42) who expired during the course of an acute alcoholically induced paranoid state; there was noted widening of the perivascular spaces and small circular areas of necrobiosis.

The neurotic personality masquerading as a chronic alcoholic or abnormal drinker is only now coming to be more adequately and properly recognized. Manson[11] claims that alcoholics, psychosomatics, or psychoneuroties are essentially composed of similar personality characteristics; this is a basic similarity, but with different modes of problem solution. He found that the chronic alcoholics possess more psychoneurotic and psychosomatic symptoms than the non-alcoholics. Karlan[12] suggests a close relationship between alcoholism, psychoneurosis, and inadequate tension states. It was noted earlier that the overt features of the family constellation presented to the individual in the home are not important. As suggested by Portnoy[13], it is not the particular external family configuration which is significant, but the internal meaning this has for the individual concerned. He indicates that the so-called neurotic character of the alcoholic mainfests itself in inebriety, since the usual protective isomorphic devices of the orthodox neurotic are inadequate and the extra assistance derived from the cortical-dulling effect of alcohol is needed. The primary neurotic group may be considered to be comprised of those in whom a personality disturbance was engendered in early childhood; this defect has now been transmuted by time into the neurotic character whose symptomatology is that of the chronic alcoholic. The reactive

or secondary neurotic may be considered to arise conditionally as a function of the disorganized life situation resulting from the alcohol addiction or abnormal drinking rather than to the presence of a specific underlying psychopathic structure.

The epileptic is a rather puzzling individual. Many questions could be raised; i.e., are those individuals subject to convulsive reactions during the course of, or following an alcoholic debauch to be considered as epileptic? Much controlled study needs to be done to solve this question. Greenblatt[14] on a comparison of tracings from 240 control subjects with those from 157 cases of alcoholism and 115 cases of idiopathic epilepsy indicates that the incidence of E.E.G. abnormality in patients with chronic alcoholism increases with age. Persons with chronic alcoholism without psychosis, irrespective of the duration of drinking, show essentially nothing of E.E.G. significance. Chronic alcoholism with psychosis is in general associated with an incidence of E.E.G. abnormality which is higher than normal. No evidence of paroxysmal dysrhythmia was found in 5 patients with pathologic intoxication, although 3 of the 5 subjects had abnormal E.E.G.'s. The highest incidence of E.E.G. abnormality was found among those with deterioration or Korsakoff's syndrome. Yet a relatively low incidence of E.E.G. abnormality (17%) was found in a series of 24 patients with "whiskey-fits" (with a negative family history and a negative past history for epilepsy and with seizures occurring only in association with alcoholism). On the other hand, a relatively high incidence of E.E.G. abnormality (75%) was found in a large series of patients with idiopathic epilepsy with onset of seizures in the same age range as the chronic alcoholics with the fits. There is then a need for an intensive work-up of the so-called epileptic alcoholic. A close connection has been found with regard to the E.E.G. and reversible pathology and the level of consciousness by Engel[15] in work done on subjects during acute alcoholic states.

To be noted all through the fact and fancy of this brief resume about the chronic alcoholic are the threads of: (1) *isolation*, either in the beginning or as the result of drinking—this is destructive and encompassing in its effect on the personality; (2) *destruction of family unity* in the sense of its implications for developmental mental hygiene; (3) *economic loss* due to forced lay-offs and absenteeism in industry, and to the cost of maintaining courts and hospitals.

Conclusions. A label, a tag, a name, or a number is not needed nor is it important; instead, an approach which is both implicitly and explicitly biosocially pragmatic is required. It has to be one which will attempt honestly to estimate personality factors operative, subject these to valid testing and to objective appraisal. In this loose yet inclusive frame of reference it will be demonstrated that the features of the developmental acculturation process are equivalent with the so-called constitutional and intra-personal experiential facets of living.

The remedy:

1. A.A. group therapy.
2. Intra-personal and interpersonal psychotherapy by any available discipline available to any Neuropsychiatrist.
3. Medical:
   a) Conditioned-reflex therapy.
   b) Special chemicals—antabuse, adrenal cortical extract, vitamins, insulin, etc.
   c) General somatic care as needed.
4. So-called non-medical, non-psychiatric treatment.
   a) Psychologic counselling and remedial work.
   b) Ecclesiastical approach[16] including the "sawdust trail". This may help the alcoholic toward an increasing tolerance of himself and others and promote maturation of the personality. Anything which can strike to the so-called "soul" and produce an emotional storm and cognitive reintegration.
5. If all of the above are unavailing, then the chronic alcoholic must be kept in a restricted environment wherein he may be permitted as much personality expression as seems fitting and appropriate, but from which he may not be discharged for as long as seems necessary on an indeterminate basis. It will be seen then, that the approach to the understanding of, and the treatment for the abnormal drinker must proceed slowly, thoroughly, and not by saltatory excursions into uncontrolled, affectively oriented, ratiocinations.

The Alcoholic Rehabilitation Division of the Governor Bacon Health Center is dedicated to the care of the alcoholic without psychosis. This individual is considered as a patient who is ill and in need of help from the medical profession rather than a social outcast or/ and criminal. The department

formally opened on December 1, 1948. Since that time 129 first admissions, abnormal drinkers, have been processed through the available facilities.

Presently every alcoholic admitted is taken to the Acute Treatment Service where he is examined physically, given the benefit of a neurologic survey and subjected to clinical laboratory procedures to determine his psychobiologic assets and liabilities. Massive doses of vitamins, insulin, oxygen as needed, tolserol, etc., are given in order to repair damage and to restore the inebriate to an adequate physical state as rapidly as possible. When all has been done on a purely medical basis that can be done, the patient is transferred to another section, the Continued Treatment Service at Robin Building. Here he is observed, counselled, exposed to twice weekly meetings with A.A. visitors from the state groups, and placed on a regime of industrial therapy; regular, scientifically designed meals are offered; he is encouraged to sleep at least eight hours and to avail himself of the recreational facilities on the grounds. During his stay at Robin, the alcoholic patient is subject to an intensive neuropsychiatric and psychologic series of examinations which culminate in a diagnostic staff clinic with the medical director, staff psychiatrists, psychologists, and others, including responsible members of A.A. Here the patient is evaluated in regard to a diagnosis, prognosis, and further treatment.

The alcoholic patient is considered pragmatically in regard to long and short term care. A simple, realistic program of rehabilitation and reeducation is oriented around his needs. Other state agencies are called upon for assistance as the need may establish itself. Psychiatric counsel is available daily to all patients. They are encouraged to seek out the psychiatrist rather than to be forced or coerced into treatment. Those who seem unwilling or fearful are approached obliquely and painlessly.

Results to date in a general way are encouraging, though there have been failures and discouraging events take place; this is not an uncommon occurrence, as those who work with the alcoholics have found. It has been determined that the type of patient, the physical, psychological, social, economic, and familial dislocation of the Delawarean alcoholic are similar to that presented by male and female problem drinkers studied in Illinois and outlined earlier.

Plans for the future are directed toward a more adequate and encompassing program:

a. Intensive use of special therapies such as Analepties, Antabuse, Endocrines when adequate personnel have been trained in the use of these and their place in the therapy for the alcoholic.

b. A diagnostic and outpatient treatment clinic where psychiatric help with follow-up and continuation care on an extra-mural basis can be given.

c. The Information Service Bureau, presently operating on a minimal basis, will be implemented. This will be a focal point for dissemination of practical information and guidance on matters pertaining to alcoholism, both individual and general on a medical basis. This information service is operated now in collaboration with the various local A.A. groups throughout Delaware.

d. A Training Depot for physicians, psychologists, sociologists, social workers, educators and industrialists is available for those who wish to study the problem drinker in the milieu offered at the Center. This can be done on the basis of the experience presently available, the knowledge already gained at the Center in regard to this socio-biologic problem, and the abundantly available clientele.

It has been found here, as elsewhere throughout the United States, that any program purporting to help, aid, assist, succor, or in any way alleviate the difficulties to which the alcoholic is heir, *must* take into consideration the men and women who make up A.A. The staff has found that without the help of the A.A. groups really significant work with the alcoholic is not possible. As a requirement for admission, it is requested that the prospective alcoholic patients have an A.A. sponsor, if such can be obtained. During his stay at the Center the patient is encouraged to contact a reliable member of A.A. for help; to this end there are frequent visits by A.A. on other days than the regularly scheduled bi-weekly meetings.

Finally, when the time comes for departure

from the Center, the patient is discharged on an approved basis only when the psychiatrist, A.A. sponsor and patient are in relative agreement that the patient is ready for an attempt at extramural adjustment. The reason for this is obvious in that the Center attempts to prepare for his departure before the patient is admitted. Practical experience indicates that an alcoholic patient must not be thrust out into what may seem to him to be a relatively hostile society (nor permitted to vegetate in the Center) without empathetic assistance from others who have had a similar erlebnis. The A.A. groups and individuals function this way in a fashion analogous to social service organizations which provide for and assist in follow-up and continuation care. With the help of A.A., the relatives are encouraged and given an insight into the needs of the alcoholic patient as they relate to his intra-familial and extra-familial orientations. The staff of the Governor Bacon Health Center make a concentrated attempt to help the alcoholic, his family, and others involved become aware of the significance of alcoholic behavior and what may be done about this over/ under-defined problem.

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MYASTHENIA GRAVIS
A Review of Etiologic Possibilities

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This memorandum is an attempt to summarize and correlate the various lines of published information bearing on the problem of myasthenia gravis. This will be limited primarily to discussion of factors that may relate to etiology, since symptomatology and treatment have been extensively treated elsewhere.[1-6]

DEFECT IN SIZE AND NUMBER OF MOTOR END PLATES

Myasthenia gravis is probably a problem of motor end plates.[9] The extensive histopathologic studies of Carey[7] provide fundamental information which seems applicable. These studies suggest that motor end plates are not fixed anatomical entities but are constituted on an expendable base. Stimulation, shock, exhaustion, etc., result in gross changes in area of these units. We infer that under normal conditions of physical activity these units change rapidly in size—being expanded at the peak of physical activity and retracted under conditions of fatigue.

While Carey reports no studies directly on myasthenic subjects, his investigation[8] of the action of prostigmine, curare, acetylcholine, and quinine throw light on the problem. The following tabulation shows that prostigmine expands, while curare with quinine decreases the area of motor end plates.

MEAN DIMENSIONS OF 1,000 MOTOR END PLATES, BICEP FEMORIS MUSCLE OF CHAMELEONS, UNDER VARIOUS CONDITIONS

	Normal	Treated With Prostigmine	Treated With Curare Plus Quinine
Length microns	87.6	110.5	49.5
Width microns	32.9	54.6	25.4

The result from prostigmine administered to the myasthenic is explained if we assume deficiency in size and number of end plates to the degree that some of the muscle fibers lack normal neural connection. The expansive action of prostigmine as shown in the above

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table would then readily account for the dramatic improvement, and the converse action of curare and quinine would similarly explain the opposite response to these drugs. We may suggest as a hypothesis that in the myasthenic subject the motor end plate area is decreased to a value near the threshold limit.

This relatively simple postulate can explain also the phenomenon of "facilitation."[9] The second of two stimuli timed, say 20 milliseconds apart, would carry the nerve impulse more readily than the initial impulse due to expansion of the motor end plate resulting from the initial stimulus.

ACETYLCHOLINE AND THE MOTOR END PLATES

The cause for the deficiency in end plate area in the case of the myasthenic seems to be related to capacity for synthesizing acetylcholine. Torda and Wolff[10,11] have conducted biochemical in vitro studies which indicate deficiency for acetylcholine synthesis in presence of serum or spinal fluid from myasthenic subjects. These studies while so far unconfirmed by other workers, appear quite interesting. The following tabulation summarizes the results:

	AVERAGES	
	Sixty-four Control Subjects	Nine Myasthenia Gravis Subjects
Acetylcholine synthesized in presence of serum 4 hours at 38° C. gamma/100 mg. frog brain	1.45	.84
	Twenty-five Controls	Three M. G.
Same for spinal fluid	2.11	1.29

Selected from the reports by Torda and Wolff, we find also the following data[12] showing effect of muscular fatigue on acetycholine synthesis both for normal and myasthenic subjects.

	Normal Sera Average of 12 Subjects		Myasthenia Gravis Sera - Average of Five Subjects	
	Resting	After Fatigue	Resting	After Fatigue
Acetylcholine synthesized in % of healthy control serum	110(std.)	60	73	58

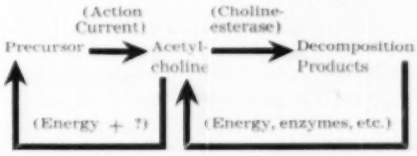
Fatigue in the normal subject, therefore, seems associated with decreased capacity to synthesize acetylcholine, and by this criterion the myasthenic is characteristically in a state approaching continuous fatigue.

Regarding relation of motor end plates to acetylcholine, Carey[8] states as follows: "The experimental variation in the quantity of the granules in the sole plate of Kuhne is the structural expression of the differential phases in the secretion of the chemical substances, possibly acetylcholine, from the terminal axons of the motor end plates." It is possible that the motor end plates may be constituted on an expendable acetylcholine foundation. Under conditions of physical exhaustion, the system has exhausted its acetylcholine and synthesis is also at subnormal rate. We may guess that the end plates then have small potential for expansion on stimulation and we have the familiar characteristics of fatigue. In the case of the myasthenic, a generalized acetylcholine deficiency would similarly lead to decrease of end plate area and we have a condition of fatigue or near fatigue even before physical activity.

ACETYLCHOLINE BIOCHEMISTRY

The hydrolysis of acetylcholine with the assistance of cholinesterase is well known, but it has been fairly recently determined that acetylcholine may be inactivated by another mechanism[13] which deserves separate discussion. It has been shown that in non-fatigued muscle, the acetylcholine is returned directly to a precursor form with the aid of energy-yielding organic phosphates. Hydrolysis takes place only under conditions of fatigue when dephosphorylation energy is in poor supply. Cholinesterase hydrolysis seems, therefore, a relatively slower process and an emergency provision in muscle for periods when insufficient energy is available.

We may indicate a portion of the acetylcholine cycle by the following designations:



It should be made clear at this point that the sequence of events in the acetylcholine cycle is not uniform throughout the system. For example, it has been found that cholinesterase participation is much more extensive in action of heart muscle than is the case for

skeletal muscle[13]. Also, it has been shown that ACh precursor deficiency leads to impairment of oxidative metabolism of muscle[42]. It is evident, therefore, that the *modus operandi* of acetylcholine varies with the structure and further that its function is not limited to nerve impulse transmission. These complexites must be borne in mind when considering problems involving acetylcholine.

We should visualize the two-step reaction above in the nature of a dynamic equilibrium following mass action lines typical of any chemical reaction. All the various enzymes, metabolites, hormones, etc., are acting simultaneously and impartially (except, of course, at the moment of nerve impulse transmission). The overall reaction— that is, whether toward precursor or to inactive decomposition products, is normally determined by the availability of energy. Cholinesterase dominates under conditions of fatigue; restoration of precusor occurs during period of rest.

It should be recognized, of course, that body tissue represents a heterogeneous component in the system and participation in an equilibrium then presents a considerably different situation from that obtained in a homogeneous system. The known extreme lability of precursor suggests that there is a more or less continuous exchange of acetylcholine between tissue and surrounding fluids and the term "equilibrium" is applicable. This could explain the "curare-like" effect reported by Walker[15], Torda and Wolff, and others[16-18] for serum from working arm. Inhibition of acetylcholine synthesis in body fluids from whatever cause could, by this reasoning, result in a "curarelike" effect— that is, a decrease in transmission of the nerve impulse.

This indication has indeed been supported by experiments[17] in which a series of twelve compounds with known influence on the acetylcholine synthesizing reaction were applied to a special frog preparation for observation of effect on myoneural transmission. A striking parallelism was reported.

Effect of Anti-Cholinesterases

The literature reports on physostigmine, prostigmine, tetraethylpyrophosphate, and diisopropylfluorophosphate (DFP) in treatment of M.G. While these agents have varying degrees of effectiveness, it nevertheless appears that all have a pronounced capacity to improve muscle strength. Indeed, these known cholinesterase inhibitors appear to be in a class by themselves as compared with other type drugs; i.e., ephedrine, adrenaline, guanadine, KCL, etc. These observations very strongly support the general hypothesis that acetylcholine supply is inadequate at certain points in the myasthenic condition.

The situation is to some degree confused by the fact that DFP is much less useful than prostigmine in relief of symptoms of M.G., but is known to decrease plasma esterase levels much more completely[19]. However, we have substantial clarification from recent evidence that DFP acts selectively on the so-called "pseudocholinesterase" and inhibits "true" cholinesterase only at relatively high concentrations[43]. The measurements of esterase in blood in connection with the studies of DFP in M.G. did not differentiate between these two enzymes and it appears likely that the "true" esterase may have been affected less than was indicated by the in vitro measurements. In addition, the motor end plates have been reported to carry 15,000 times as much cholinesterase as surrounding tissue[44]. It is known that cholinesterase previously bound by eserine or prostigmine is completely protected against DFP[45]. The high concentration of esterase at the end plate suggests some form of specific affinity which may be sufficient to prevent reaction with DFP. This is all the more probable since it is known that DFP is entirely unlike acetylcholine, acetylcholine precursor, or prostigmine in that it is oil soluble.

Harvey, et al[46], have shown that a good level of strength can be realized with DFP in M.G. by the intra-arterial injection method which allows a high concentration with avoidance of the many distressing side effects. This is consistent with the reasoning above. In general, the evidence from administration of this radically different anti-esterase confirms rather than disproves the hypothesis that cholinergic anomaly is somehow involved in the M.G. problem.

Action of Curare

The similarity of the symptoms in myasthenia gravis to the reactions resulting from

curare quite easily lead to the conclusion that some toxin in the system of the myasthenic subject interferes with nerve-impulse transmission by the curare mechanism. However, curarized muscle shows decreased response to acetylcholine in contrast to myasthenic muscle which is hypersensitive to acetylcholine[9]. From available information, it appears that curare does not inhibit acetylcholine synthesis[20], except at concentrations considerably above those at which it is known to begin to have pharmacological activity. Abdon, et al[21], show that it blocks release in muscle of acetylcholine if stimulation is via nerve, but is completely without effect on this reaction if the muscle is electrically stimulated directly. Torda and Wolff[17] show that curare is extremely effective in decreasing response of isolated muscle to direct treatment with acetylcholine and in this respect is completely different from several other agents, which decrease myoneural transmission in parallel with decrease in acetylcholine synthesis. Carey suggests that the action may be one of coagulation of certain membranes, and his microphotographs of curarized end-plates lend support to this explanation. The motor end plate might be compared to a hand with fingers extended. Acetylcholine deficiency shortens the fingers, but curare closes the hand to form a fist.

These several lines of evidence suggest that a toxin of the curare type seems not to be involved. In general, it would appear that some portion of the enzyme system which assists in formation of acetylcholine may be faulty in function. Possibly a toxin poisons some essential enzyme and this toxin could be either a foreign material or merely an excess of naturally occurring metabolite. Alternatively, the defect could be in the equipment responsible for generating the enzyme. Indeed, it is possible that the same symptoms could result from more than one cause which may explain the frequent conflicting reports in M.G. investigations

REVIEW OF CAUSES FOR DEFICIENT ACETYLCHOLINE

The more relevant reports bearing on the problem will be outlined briefly. It may be stated generally that negative findings seem the rule with the exception of some extremely interesting results recently reported for adrenocorticotrophic hormone (ACTH).

Adams, Power, and Boothby[22] review the literature dealing with analytical studies and also report comprehensive data from their own work. Metabolites studied were calcium, magnesium, sodium, potassium, phosphorus, sugar, urea, creatinine, amino acids, and uric acid. Findings were negative. In a study of potassium levels in M. G., Cumings[30] reports serum K to be normal with increase by about 100% on administration of prostigmine.

Studies relative to the processes of transamidination and transmethylation[23] report no significant differences compared with control subjects.

Nevin[14] reports muscle biopsy studies and concludes that energy-yielding phosphate components of myasthenic muscle to be within normal limits. Nevin's data quite clearly shows that energy deficiency is not part of the problem in myasthenia gravis.

Cholinesterase is in normal values in blood serum[25,26]. One necropsy result[27] on muscle showed a low value which, however, could be explained by prior extensive prostigmine treatment. It should be noted that these values include pseudoesterases[18] and are subject to question.

Necropsy studies report inconstant findings[28]. These are: (1) "lymphorrhages" in skeletal muscle and internal organs in about 2/3 of the cases; (2) abnormality of thymus in about 50% of the cases; and, (3) some cases completely negative.

The *in vitro* oxidative metabolism of excised muscle from M. G. subjects is reported by Stare, et al[47]. Muscle from two subjects was found to take up oxygen at subnormal rate. Addition of prostigmine in the test increased uptake for one of the samples, while prostigmine plus ephedrine improved the second.

These results can be rationalized on the basis of certain studies carried out on oxidative metabolism in relation to acetylcholine precursor by Abdon, et al[42]. It was observed that muscle of young rats on a choline-free diet became precursor deficient shortly before the animals died, and such muscle had slow oxygen uptake as measured by methylene blue decolorization. The defect was corrected, either by choline injection to the animal short-

ly before sacrifice, or by addition of isolated precursor extract to the minced muscle in the methylene blue test. Addition of choline compounds other than precursor to the minced muscle was without effect.

There seems little doubt of a connection in some subjects between the thymus and the symptoms of myasthenia gravis[1,2,29-35]. Torda and Wolff[37] report inhibition of acetylcholine synthesis for extracts of thymus and pancreas. Tests with extracts of various other body tissues were negative in this respect. Mixed results have been reported for thymectomy[1,2].

Dysfunction in some portion of the endocrine system is considered a possible basic cause for myasthenia gravis. A possible endocrine relationship might be suspected from the reports that a very substantial proportion of female subjects enjoy remissions[39] during pregnancy.

Torda and Wolff[40] report on a series of hormone investigations initially with experimental animals, followed later by trials on subjects ill with myasthenia gravis. Noting that adrenocortical deficiency leads to thymus hypertrophy, while injection of certain pituitary extracts resulted in thymus atrophy, these workers investigated effects of these hormones on acetylcholine synthesis. They reported that brain tissue from treated animals, as compared with controls, had greatly increased potentiating capacity for the acetylcholine synthesizing reaction tested in vitro. This has now been followed by report[41] of trials of ACTH extracts on five myasthenia gravis subjects having varying degrees of disability. A significant, although incomplete, degree of remission in all cases was indicated by a series of objective muscle tests. Prostigmine intake was voluntarily reduced by an average of 70%. It was stated also that the remissions persisted to the time of writing of the report—a period of three months.

It will be necessary to await additional information before these results can be properly assessed in the etiological picture. Confirmation has not yet been reported in the literature, although we have private communication to the effect that these findings have been confirmed. At the moment, it would appear that an important step forward has been made and additional revealing developments may shortly be expected.

SUMMARY

1. A review of the numerous investigations of the myasthenia gravis phenomenon strongly supports the early assumptions that acetylcholine shortage is a major factor in the problem, and there is strong suggestion of deficiency at motor end plates.

2. Available experimental evidence tends to eliminate as a factor in the problem a circulating agent which effects myoneural block similar to curare, but points rather to generalized acetylcholine deficiency as the sole cause for the symptoms. There is evidence of a circulating factor, which may in some cases originate with the thymus, but this factor acts on the acetylcholine synthesizing reaction and not on the myoneural junction directly.

3. Defect in the enzyme system which assists energy transfer in the acetylcholine synthesizing reaction is suggested as a probable underlying cause for acetylcholine deficiency in myasthenia gravis. Recent reports of positive effects from administration of adrenocorticotrophic hormone suggests relation of the problem to imbalance or dysfunction in certain portions of the endocrine system.

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MULTIPLE ABSORBENTS IN THE TREATMENT OF DIARRHEA IN PEDIATRICS

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In the past diarrheal diseases have accounted for almost as many deaths among infants as all other causes combined; however, the mortality in infants caused by these diseases has shown a progressive decrease during recent years. This decrease in incidence is no doubt the result of training the parents in the proper methods of preparing, sterilizing and refrigerating the infant's formula, which decreased the incidence of microbial contamination of the infant's food supplies.

Diarrhea may result from one or more of many causes. Diarrheal diseases still challenge the physician. They are major problems from the standpoint of the infant and the older child.

The predominating types of diarhea seen in infants in Baltimore today seem to be proteolytic rather than fermentative in character. The parenteral infections still constitute a problem as etiological factors of diarrhea in infants. The dysentery group of organisms is encountered, but not nearly as frequently as in the past.

When the fermentative type of diarrhea predominated in infants, it was treated with some form of protein milk, but in the proteolytic diarrhea this form of treatment simply prolongs the disease. In the proteolytic type of diarrhea the stools are not very frequent. They have a characteristic foul and offensive odor. They are large and spongy in character and may cause considerable discomfort to the patient. This condition may interefere with growth and good health. Treatment has been discouraging because many cases have a tendency to recur, and others persist for many months.

It is obvious that diarrhea in infants may be of dietary origin, the result of food poisoning or by direct bacterial invasion of the intestinal tract. The bacteria most frequently identified are of the dysentery, typhoid or Salmonella groups.

Therapeutic measures used are many, but the results obtained have been far from satisfactory. There is a need for an effective, safe and acceptable preparation for treating this serious condition.

The solution to this medical problem would seem to be a preparation which would adsorb a major portion, if not all, of the toxic substances in the intestinal tract without adsorbing any nutrient materials. Various types of adsorbing agents have been tried but none have been found satisfactory.

In 1947 I became interested in the clinical application of a preparation containing three adsorbing agents*. This preparation contained polyamine formaldehyde resin, a synthetic aluminum silicate (zeolite), and a synthetic magnesium aluminum silicate, in a base which was found to be palatable to the pediatric patients. This combination had been found highly effective in inhibiting lysozyme[1], removing bacterial toxins of unknown chemical composition and removing the bacteria themselves[2], adsorbing tyramine, histamine putrescine, cadaverine, and indole and skatole[3]. These combined agents were effective in adsorbing paralytic shellfish poisons[4]. Chronic toxicity studies of 6 months duration showed

*From the Department of Pediatrics, University of Maryland.

*Resion—Supplied by the Medical Research Department of the National Drug Company, Philadelphia.

absence of histopathology in rats receiving 10 per cent of their diets in the form of the combined adsorbin agents[5].

It was decided to take 50 consecutive cases of diarrhea irrespective of etiology and treat them with the combined adsorbing agents preparation.

These 50 cases represented:

1. Proteolytic type ..... 30 cases
2. Parenteral infection ..... 10 cases
3. Fermentative type ..... 4 cases
4. Salmonella infection ..... 4 cases
5. Dysentery ..... 1 case
6. Diarrhea of newborn ..... 1 case

TABLE I

Average age of the 50 patients—13.8 months.
Youngest—one month; oldest—60 months.
Average duration of diarrhea before treatment—11.22 days.
Shortest—1 day; longest—120 days.
Average number of stools per day before treatment—5.3.
Smallest number—4; largest 7.

The 5 cases of infectious diarrhea, 4 salmonella and 1 dysentery, and 3 cases of parenteral infection were first given sulfonamides and penicillin in an attempt to control the diarrhea. When this regimen did not prove effective, they were given the combined adsorbing agents; one tablespoonful each 4 hours. This controlled the diarrhea in every case in 24 to 48 hours.

In the first 6 patients treated, it was determined that teaspoonful doses 3 to 4 times daily were inadequate. This fact is reflected in these cases: 1 case of 120 days duration required 30 days treatment with 4 teaspoonsful daily; 1 case of 18 days duration was controlled in 5 days with 3 teaspoonsful daily, and 1 case of 24 days duration was controlled in 5 days on the same dose. There were 3 cases of 7 days duration, 2 of which required 7 days and 1 case 5 days to bring the diarrhea under control.

Forty-four subsequent patients were treated with tablespoonful doses 3 to 4 times daily. If the diarrhea was severe, a tablespoonful of the adsorbent was given after each bowel movement. No other medication was given, nor were the patients placed on starvation diets.

In all 44 patients the diarrhea was controlled in 24 to 48 hours. In the proteolytic type of diarrhea, which is known to have a tendency to recur, the administration of the adsorbent is continued for several weeks as a prophylactic measure. It was observed that the patients' appetites increased and most of them showed an increase in weight. There were no recurrences in the patients on this therapeutic regimen. No toxic effects were observed.

A resume of the results is presented in Table II.

TABLE II

Cases	Average Age	Average Duration of Diarrhea	Average Stools per day	Diarrhea Controlled
19	14.70 mos.	5.9 days	5.3	1 day
12	8.58 "	9.5 "	5.3	2 "
6	18.70 "	14.0 "	5.2	3 "
3	13.60 "	9.7 "	5.3	4 "
5	6.80 "	13.3 "	5.3	5 "
6	17.00 "	10.0 "	6.0	6 "
2	18.00 "	6.5 "	5.2	7 "
1	60.00 "	120.0 "	4.0	30 "

SUMMARY

1. An adsorbant preparation containing a polyamine formaldehyde resin, an aluminum silicate (zeolite), and a magnesium aluminum silicate, in a palatable vehicle was found to be effective in controlling diarrhea in 50 infants and children.

2. The dose was established at 1 tablespoonful every 4 hours, except in several very young infants, in whom 1 teaspoonful every 3 to 4 hours was found adequate.

3. Most cases of diarrhea were cured within 24 to 48 hours.

4. There were no toxic effects.

5. The adsorbent preparation solicited patients cooperation because of its palatability.

COMMENTS

The series of clinical cases is admittedly small, but the results were so surprising and gratifying that this preliminary report is being made to stimulate further clinical studies of this combined adsorbent preparation.

11 E. Chase Street

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+ Editorials +

DELAWARE STATE MEDICAL JOURNAL

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A. M. A. DUES

The House of Delegates of the American Medical Association at its meeting in Washington, D. C., December 6 to 8, 1949, adopted amendments to the By-Laws of the American Medical Association whereby Division One, Chapter II, Tenure of Membership, has been changed to read as follows:

Chapter 11.—Tenure and Obligations of Membership; Dues.

Section 1.—When the Secretary is officially informed that a member is not in good standing in his component society he shall remove the name of said member from the membership roll. A member shall hold his membership through the constituent association in the jurisdiction of which he practices. Should he remove his practice to another jurisdiction, he shall apply for membership through the constituent association in the jurisdiction to which he has moved his practice. Unless he has transferred his membership within six months after such change of practice, the Secretary shall remove his name from the roster of members.

Sec. 2.—Annual dues, not to exceed $25.00, may be prescribed for the ensuing calendar year in an amount recommended by the Board of Trustees and approved by the House of Delegates. Each active member shall pay said annual dues to his constituent association for transmittal to the Secretary of the American Medical Association.

An active member who is delinquent in the payment of such dues for one year shall forfeit his active membership in the American Medical Association if he fails to pay the delinquent dues within thirty days after notice of his delinquency has been mailed by the Secretary of the American Medical Association to his last known address.

Any former member who has forfeited his membership because of being delinquent in payment of dues may be reinstated on payment of his indebtedness.

The following important changes have been made:

(A) The word "Dues" has been added to the title of Chapter 11.

(B) Chapter 11 has been divided into two sections.

(C) The first sentence of Chapter 11, which read, "Membership in this Association shall continue as long as a physician is a member of a component society of the constituent association through which he holds membership," has been deleted.

(D) The words "of the American Medical Association" have been added after the word "Secretary" where clarification is necessary.

(E) The sentence, "An active member shall pay dues or assessments as may be prescribed by the Constitution or By-Laws," has been deleted.

(F) The words "in the American Medical Association" have been added after the words "shall forfeit his active membership" in the second paragraph of Section 2.

(G) The sentence forming the third paragraph of Section 2, with regard to reinstatement, is a new addition to Chapter 11.

(H) A new paragraph, forming the first paragraph of Section 2, providing for annual dues not to exceed $25.00 has been added to Chapter 11.

The House of Delegates, on Recommendation of the Board of Trustees, Set the Membership Dues for the Year 1950 at $25.00.

The full effect of the new provisions will have to be studied and developed during the next year. However, the following interpretations of the amended By-Laws are offered at this time:

(a) Active membership in the American Medical Association will continue to be limited to those members of constituent associations who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) are entitled to exercise the rights of active membership in their constituent associations as provided in Article 5 of the Constitution of the American Medical Association.

(b) A member of the American Medical Association shall lose his membership in the Association when the Secretary of the American Medical Association is officially informed

that a member is not in good standing in his component society *or is delinquent in the payment of the American Medical Association dues established by the above change in the By-Laws.*

(e) Forfeiture of membership in the American Medical Association due to failure to pay dues will have no effect on membership in the component or constituent medical societies unless the component or constituent societies amend their respective constitutions and by-laws. It is, therefore, possible that a physician may be a member of his component and constituent societies and at the same time not be a member of the American Medical Association.

(d) The amended By-Laws provide for the collection of the American Medical Association membership dues by the constituent associations for transmittal to the Secretary of the American Medical Association. The detailed method to be adopted by each constituent association will vary in each state. In general, the method utilized by each state for the collection of its own component and constituent association dues should be followed.

It is planned to provide each member of the American Medical Association a membership card and certificate of membership when his dues are paid.

It will be necessary for the Secretary of the American Medical Association to notify those members who are delinquent in the payment of their dues, and this office will, therefore, require a complete list of all active dues paying members.

No changes have been made in the Constitution and By-Laws of the American Medical Association with respect to Fellowship. Eligibility for Fellowship and annual Fellowship dues of $12.00 remain the same. Under the present By-Laws a Fellow will pay for the year 1950 total membership and Fellowship dues of $37.00.

The following members may be exempted from the payment of the $25.00 American Medical Association membership dues: retired members; members who are physically disabled; interns, and those members for whom the payment of such dues would constitute a financial hardship. No member will be exempted from the payment of his American Medical Association dues who is not exempted from his component and constituent society dues.

DROP THE REDS!

For some months the medical profession has been concerned with the activities of an organization known as AIMS, an abbreviation for the Association of Internes and Medical Students.

AIMS, a national organization, has a chapter in three of the five medical schools in this city.

According to literature distributed on the campuses, its object is the "advancement" of students. On the face of it this sounds like a healthy motive. Even the most conservative could find no fault with a group which would help medical students to become good doctors and thus fit them to minister to the ills of humanity.

But AIMS is directly affiliated with the International Union of Students whose headquarters is in Prague, Czechoslovakia. AIMS makes no attempt to hide the fact; indeed it has, from time to time, actively engaged in collecting funds to send to the International Union of Students which is high on the FBI's list of Communist organizations. Our concern is that American students living in the United States, enjoying the protection and the freedom of this Government, and taking full advantage of the finest educational system in the world, should ally themselves with an outfit that means to destroy all we stand for.

It is a poor business to accept the privileges of American citizenship and at the same time engage in vigorous and active support of Communism.

Yes, it's a free country, the last free country on earth, where the individual can speak and act as he pleases. But there is a great difference between freedom and license. There is free speech in this country—a little TOO free when young men and women, with their vague, loose talk of "international brotherhood," can abuse the United States and aid in the attempt of Communists to ruin the country.

We suggest that AIMS sever its connection with the Reds, the pinks and the fellow-

travelers, and confine its activities to the principles of American medicine which has no place for Communism.

Editorial, *Phila., Med.* January 28, 1950.

DELAWARE DOCTORS HONORED

At the last Convocation of the American College of Surgeons. Dr. W. Edwin Bird, Wilmington, was elected to the Board of Governors for a three-year term ending in October, 1952. This is the first time a Delawarean has been elected a Governor. At the recent Congress on Medical Education and Licensure. Dr. Bird was elected Vice-President of the Federation of State Medical Boards of the United States.

At the last Convocation of the International College of Surgeons Dr. Raymond A. Lynch, Wilmington, was advanced to the rank of Certified Fellow in the United States Chapter, and a State Regent for Delaware.

WOMAN'S AUXILIARY

Mid Winter Report

Our greatest single effort this year is the creation of a Nursing Scholarship for a Delaware girl. A very active committee is working on the plan and the Scholarship will be available to one of this spring's High School graduates.

The New Castle County Ways and Means Committee presented a successful bridge luncheon and fashion show.

The Public Relations Committee has been meeting, and at the request of the Medical Society of Delaware has been compiling a file of speakers on medical health insurance. Individually, Auxiliary members are working with Red Cross, Cancer Control, Girl Scouts, Cub Scouts, P.T.A. and home nursing groups. One member leads a church discussion group of young people and had a member of the state medical society speak on compulsory health insurance.

New Castle County Auxiliary members are sewing for the V.N.A. and are planning a booth for the next county medical meeting. This county group is also sponsoring a Wilmington Drama League play in order to raise money for the Nursing Scholarship.

The Sussex County Auxiliary provides refreshments and a "get together" with the County Medical Society immediately following the regular monthly meetings of both organizations.

Marie S. Fox, President
(Mrs. J. Leland Fox)

MISCELLANEOUS

Notice to all Delaware Physicians

The Seizure Control Unit of the Governor Bacon Health Center will be open for patients on or about the 25th of February. One of the features of the Seizure Control Unit is the electroencephalographic department, which has a technician trained by Dr. Joseph Hughes. Dr. Hughes himself will be in direct professional control of the electroencephalographic department, as well as the entire Seizure Control Unit.

The services offered will be for patients in residence at the Governor Bacon Health Center, who will need a period of extended observation to complete the diagnosis and to make available an appropriate medication regime. There will also be an outpatient department in the Seizure Control Unit for patients who are ambulatory, and who are referred by physicians in Delaware, for purposes of electroencephalography, and for assistance in establishing proper medication. This service will be gratis for indigent patients, but there will be a graduated fee, according to the means of those who can afford to pay.

M. A. Tarumianz, M.D.,
Superintendent

Phthisiologists have long agreed that the diagnosis of tuberculosis must rest upon the laboratory demonstration of tubercle bacilli in tuberculous suspects. Francis J. Weber, M.D., Pub. Health Rep., Oct. 1, 1948.

A Preview Of Socialized Medicine.

Following is a chronological history of a Federal Employees' Compensation case as experienced by a member of The Board of Trustees of the A.M.A.:

July 26—Doctor requested authorization to operate on hernia of occupational origin (bilateral).

Sept. 10—Reply received asking for a report on form CA-32.

Sept. 14—Report mailed.

Nov. 5—Date of order authorizing operation on left hernia only.

Nov. 10—Doctor again requested authority to do bilateral operation.

Dec. 31—Another letter by doctor to government bureau as a tracer to Nov. 10 letter.

Jan. 27—Letter from bureau states the request is quite unusual as one hernia is of long duration, but claim was being referred for decision.

Feb. 8—Date of authorization to operate on left hernia, bureau stating that it did not object to having right hernia repaired at no expense to government, etc.

Ho, hum, and no doubt the doctor expected the check in his Christmas mail — next Christmas, that is.

The State is My Shepherd

The Congressional Record last week reprinted the following "Psalm to a Taxpayer," which appeared in a small newspaper in the State of Washington. It was edited by John C. O'Brien, a taxpayer:

The State is my shepherd; I shall not want.
It maketh me to pay many taxes so it can keep me in mine old age.
It taketh my earnings; it reacheth into my bank account for its solveney's sake.
Yea, though I struggle with reports unto the dead of the night, I will not catch up; for they are with me always, their penalties discomfort me.
It has obliged me to conduct my business in the presence of its agents; it fills my files with forms; my funds runneth out.
Surely, its rules and regulations shall follow me all the days of my life; and I may dwell in the big house of my uncle forever.

Wilmington Sunday Star, Oct. 23, 1949.

Russia Today

Medical standards in Russia today are poorer than before the 1917 Bolshevik Revolution. That is the admission of Soviet Vice-Commissar Vasili Parrin who added apologetically that "Where only five percent of the people enjoyed good medicine before, now one hundred percent get some kind of medicine."

George Moorad, writing in the November issue of *The American Mercury*, states that Soviet medicine is far behind its proponents' wild claims. To substantiate his charges, the veteran correspondent, who was killed in the recent crash of a KLM airliner in India, quotes the Soviets themselves.

E. I. Smirnov, Minister of Health for the USSR, recently marshalled figures in the "Sovetskaya Meditsina," a restricted magazine, proving that the illnesses of patients in Russian hospitals were being incorrectly diagnosed from fifty to seventy-five percent of the time.

The state of Russian health today, according to international Red Cross estimates, is very poor. 20,000,000 civilians died of starvation and its related effects in World War II.

The late Mr. Moorad says "Unquestionably millions of other deaths were hastened by lack of food, and the effect will be felt for a generation in tuberculosis, bad teeth, faulty bone structure, cardiac ailments, and digestive troubles."

The responsibility of the doctor in enabling the patient to gain psychological acceptance of the diagnosis cannot be too strongly emphasized. There is much that auxiliary medical personnel can do, but all that they do cannot equal what the doctor himself can accomplish in helping the patient to develop a constructive attitude toward his illness. The patient "can take it" from the doctor to a degree that no one else can match. The understanding and assurance the patient receives from the doctor have far more effect in creating a frame of mind conducive to successful hospitalization than any help the patient receives from others. William B. Tollen, Ph.D., VA Pamphlet 10-27, Oct., 1948.

Lighting is Tipoff to a Good Restaurant

Chicago—Adequate lighting is a sign of a good restaurant, says Lawrence McCracken, Rye, N. Y., former member of the bar and tavern sanitation panel of the National Sanitation Foundation.

Watch for clean windows and sidewalks too, he advises in the October issue of *Hygeia*, health magazine of the American Medical Association.

Dim lighting, unsealed cracks in floor covering or around booths, a smell of grease, cracked cups and dishes, and dirty washrooms are indications of an undesirable restaurant, Mr. McCracken points out.

Quality of service is important, he adds. Waitresses and bartenders who pick up glasses by putting their fingers in the top and waitresses who serve food by stacking one dish on top of another are not using sanitary methods. Glasses should be washed instead of merely rinsed, ice and butter should be picked up with implements rather than with the fingers, and silver should be picked up by the hands only.

Balanced meals, fresh salads, and moist meat are indications of good cooking. Brilliantly green vegetables have been cooked with a touch of baking soda which heightens color but washes out flavor, makes food slimy, and may destroy vitamins.

OBITUARIES

LOUIS S. PARSONS, M. D.

Dr. Louis S. Parsons, 53, prominent Wilmington surgeon for over 25 years, died in the Delaware Hospital on February 15, 1950 of heart disease, which had caused his retirement from active practice about four years ago. Since then he and his wife had divided their time between Ocean City, Md., and West Palm Beach, Fla. He had been a hunting and fishing enthusiast all his life.

A native of Parsonsburg, Dr. Parsons came to Wilmington from Pennsylvania in 1921 after two years of internship in Episcopal Hospital in Philadelphia. He was born Dec. 14, 1896, a son of the late Granville A., and Laura Adkins Parsons. He studied in the elementary and high schools of Parsonsburg, and took his medical degree at the University of Pennsylvania, graduating in 1919. He was one of the chief surgeons of the Delaware Hospital staff before his retirement.

During his long practice here, Dr. Parsons served as surgeon for the Bureau of Fire, Department of Public Safety; the Pullman Company and other organizations.

In addition to professional memberships, in the New Castle County Medical Society, Medical Society of Delaware, American Medical Association, and the American College of Surgeons, Dr. Parsons was associated with the Medical Club of Philadelphia and the Free and Accepted Masons, in which he held the 32nd degree, Lu Lu Temple, Ancient Arabic Order Nobles of the Mystic Shrine, and the Delaware Consistory.

In 1925 he married the former Ruth Morgan of this city, who survives him. He also leaves a son, Louis Smith Parsons, Jr., and a daughter, Ann Parsons, both students at the University of Delaware.

The funeral took place from the Chandler Funeral Home, Wilmington, on February 18, 1950, with interment in the Methodist Cemetery at Parsonsburg, Md. The Rev. Arthur W. Goodhand, Jr., assistant pastor of Grace Methodist Church, Wilmington, officiated at the services here, and the Rev. D. O. Hornung, pastor of the Methodist Church at Ocean City, Md., had charge of the ceremony at the grave.

A. PARKER HITCHENS, M. D.

Dr. A. Parker Hitchens, 72, former Wilmington City Health Commissioner, died at his home in Philadelphia on December 19, 1949, of carcinoma. He had been ill for some time.

Born in Delmar, in 1877, Dr. Hitchens received his M.D. from the Medico-Chirurgical College, Philadelphia, in 1898. He also studied at the University of Pennsylvania, St. Mary's Hospital, London, and Woods Hole, Mass. Three years after graduation he became bacteriologist at the Mulford Biological Laboratories, Glenolden, Pa., where he served

as a director for 12 years. He resigned in 1918 to enter the Army Medical Corps.

In 1920 he began research work in the U. S. Public Health Service and became an assistant professor in the Army Medical School. He had held important posts in the school and in Walter Reed Hospital.

From 1925 to 1929, he had extensive experience in the public health administration of the Philippine Islands, where he served on Gen. Leonard Wood's staff as technical adviser in public health and sanitation.

He was also president of the Philippine Leprosy Research Board, and organized the School of Public Health and Preventive Medicine as part of the University of the Philippines.

He had served as president and secretary of the Society of American Bacteriologists, was a member of the Philadelphia College of Physicians, a fellow in the American Association of Military Surgeons, a fellow in the American Public Health Association, and was an editor of various medical publications and author of several books. He was also a Mason.

Dr. Hitchens was a former member of the New Castle County Medical Society and the Medical Society of Delaware, transferring his membership to the Pennsylvania State Society in 1948.

Dr. Hitchens came to Wilmington to head the health department in 1944. He had formerly been chief of the Public Health Department of the University of Pennsylvania, and until recently, he served as head of the Bureau of Laboratories of the Pennsylvania State Board of Health.

During his stay in Wilmington Dr. Hitchens was particularly active in the 1947 polio epidemic. He resigned from the position of health commissioner in September, 1948.

Surviving are his wife, Ethel; son, John of Washington, D. C.; and a daughter, Ethel.

Funeral services were held at the Church of the Holy Savior, Philadelphia, on December 13, 1949.

BOOK REVIEWS

Human Growth. By Lester F. Beck, Ph. D., Associate Professor of Psychology, University of Oregon. Pp. 124, illustrated. Cloth. Price, $2.00. New York: Harcourt, Brace & Company, 1949.

This is a very interesting and useful little book for doctors, social workers, and teachers whose work brings them in contact with children and parents. It presents in plain language and clear illustrations the story of human growth.

The book is especially useful in teaching adolescents and young persons the fundamentals of sex education through a better understanding of the physiological processes involved in the human body and the interaction of the various glands and hormones.

Many questions and answers are given which explain the normal, healthy development of the body.

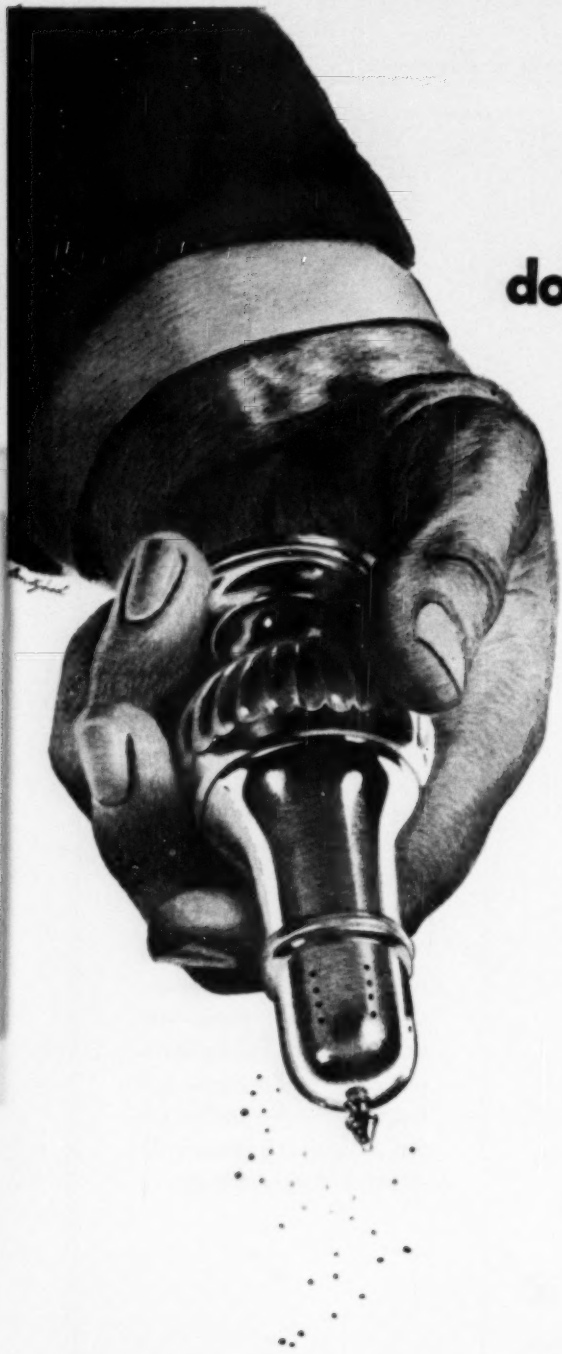
HEBREW MEDICAL JOURNAL

The appearance of Volume 2, 1949 of the *Hebrew Medical Journal* (*Harofe Haivri*), concludes the 22nd year of publication of this bi-lingual, semi-annual Journal, edited by Moses Einhorn, M. D.

Written in Hebrew, with English summaries, the Journal is a contribution to the development of Hebrew medical literature and thus facilitates teaching in the newly established Hebrew University - Haddassah Medical School in Israel.

In this issue a detailed article is presented on Scoliosis by Samuel Kleinberg, M.D., and Prof. Arnold Kutzinski gives a comprehensive survey on the Psychopathological Problems of the Jews in Israel.

There is a special section devoted to Historical Medicine which contains three interesting essays: Medical and Anatomical Terms in the Pentateuch in the Light of Egyptian Medical Papyri, by Prof A. S. Yahuda; Jews as Intermediaries of Medicine and Natural Science During the Middle Ages, by Zussmann Munter, M.D.; Al-Qirqisani's Essay on the Psycho-Physiology of Sleep and Dreams, by Dr. Leon Nemoy.



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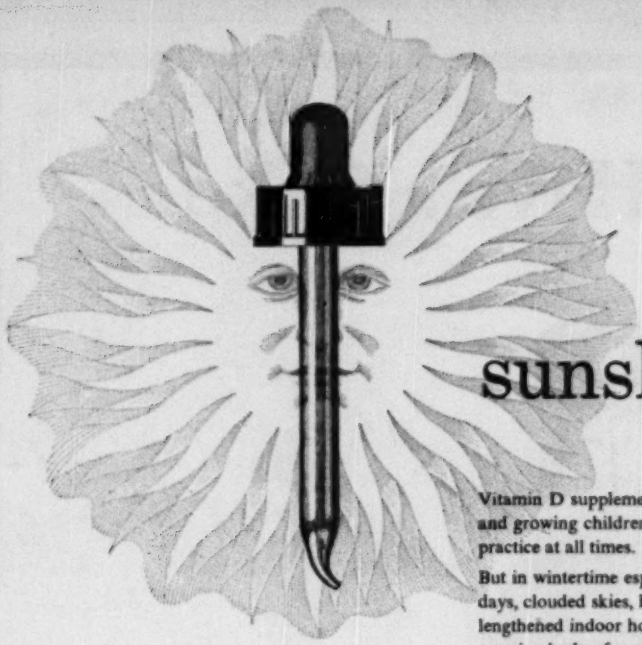

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